

WHAT IS CLAIMED IS:

1. A device for measuring the movement of an object comprising:
  - a. means for creating time-varying magnetic fields at least large enough to surround the object;
  - b. electrical circuits adapted to conform to the surface of the object; and
  - c. voltage monitoring means connected to the electrical circuits, whereby motion of the surface creates a measurable change in induced voltage in the circuits that correlates to the movement of the object.
2. The device of claim 1 in which the voltage monitoring means is connected to a computing means suitable for performing a series of algorithmic steps to calculate the volume change of the object from the measured induced voltage.
3. The device of claim 1 in which the electrical circuits are adapted to conform to one or more portions of a human body.